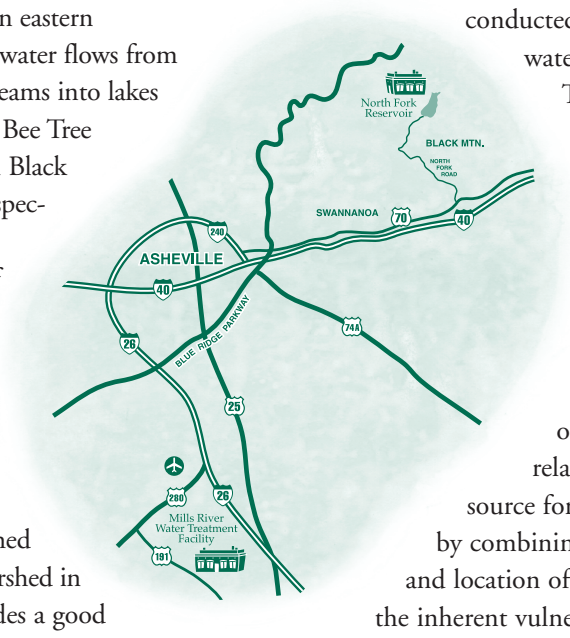
Quality Begins At Our Sources

It's very easy to see why our drinking water is considered some of the finest available anywhere in the United States. Our primary source of water is located in Black Mountain in eastern Buncombe County where the water flows from pure mountain springs and streams into lakes known as the North Fork and Bee Tree Reservoirs. They are located in Black Mountain and Swannanoa, respectively. These pristine lakes are surrounded by 22,000 acres of highly protected mountain forests owned by the City of Asheville.

Our secondary source of water is the Mills River, which was put into operation in late 1999. The Mills River Watershed is very different from our watershed in the east; however, it still provides a good source of water. The watershed covers 47,440 acres in Henderson and Transylvania counties, with approximately 75 percent of it being in the Pisgah National Forest. It is a mixture of forest, farmland, and low density development. Although the Mills River is not pristine, it has the advantage of providing our region with a natural resource that has multiple uses, including being an invaluable drinking water source, trout fishery, fish and wildlife habitat, and recreational resource.



Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environment and Natural Resources, Public Water Supply Section, Source Water Assessment Program (SWAP) conducted an assessment of the drinking water sources across North Carolina. The purpose of the assessment was to determine the susceptibility of each drinking water source to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate, or Lower. The relative susceptibility rating of each source for the City of Asheville is determined by combining the contaminant rating (number and location of PCSs within the watershed) and the inherent vulnerability rating (geologic characteristics of the surface water source and the watershed area). The assessment findings are summarized below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)	
Source Name	**Susceptibility Rating**
North Fork Reservoir	Lower
Mills River	Moderate

(Found in SWAP Report Table 2)

It is important to understand that a susceptibility rating of higher does not imply poor water quality, only the systems' potential to become contaminated by PCS's in the assessment area. The complete SWAP Assessment report for the City of Asheville Water Resources Department may be viewed on the Web at: http://www.deh.enr.state.nc.us/pws/swap. To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program – Report Request, 1634 Mail Center, Raleigh NC 27699-1634, or email request to swap@ncmail.net. Please indicate the system name (Asheville-Buncombe-Henderson), PWSID (01-11-010), and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-715-2633.

We Optimize Quality With Careful Treatment

We are proud of the exceptional quality of water that flows through our system to your household or business daily. We treat it very carefully at our state-of-the-art water treatment plants to enhance its quality. The North Fork Water Treatment Plant (built in 1955 and later expanded to a current capacity of 31 million gallons per day, mgd) operates using a direct filtration process. Lake water from the pristine North Fork Reservoir is pre-chlorinated and mixed with aluminum sulfate to coagulate suspended particles that come from the lake. After mixing, the water flows through the filters, which remove coagulated particles. Following filtration, the pH is adjusted, fluoride is added for dental health purposes, corrosion inhibitors are added, and the water is once again chlorinated for further disinfection.

The 7 mgd Mills River Water Treatment Plant was designed to produce drinking water that is comparable to the high quality water that comes from our North Fork Reservoir. The treatment process is more complex than at the North Fork facility; and includes ozone treatment for disinfection. Water is taken from the Mills River and pumped first to an untreated water storage reservoir where suspended materials are settled out. The settled water is pumped to the pre-ozonation system to begin disinfection; it

(continued inside)

Our Commitment To Quality

Congress and the EPA have mandated this report and to a large extent its format and content. The EPA wants to be sure every community knows what is in their drinking water. We agree. Water Quality is never taken for granted by our customers or by those of us who work everyday to ensure the best quality of water possible. Our charge is to present this information in a way that is understandable and gives you confidence in the quality of water supplied to your home or place of business.

This Annual Water Quality Report provides details about the quality of your water, where it comes from, how it is treated, and how you can conserve this precious resource. You may expect an update of this report each year.

The City of Asheville Water Resources Department is required to test for over 128 constituents (substances) to make sure that the water you drink is safe. In 2006, only 13 of these substances were detected and they were well within safe levels - making our drinking water one of the best sources of water in the country. The table on the following page lists these 13 substances.

Customer Input Welcome

We invite our customers to learn more about the City of Asheville Water Resources Department. Customers are welcome to attend regular meetings of the Asheville City Council in the City Council Chamber located on the second floor of the City Hall Building at 70 Court Plaza. Formal meetings are held on the second, third and fourth Tuesday of every month beginning at 5:00 pm. The public is invited to attend. Replays of City Council meetings may be viewed on Charter Channel 11 on Wednesdays and Fridays at 6:00 pm and Saturdays and Sundays at 9:00 am. Questions regarding water quality, water bills, or any other questions can be answered by calling the City's Customer Service Division at 251-1122. You can also explore our web page on the internet at www.ashevillenc.gov.

Learning About Our Water

The Water Education program provides information about how water is used, how water is treated, why water is so important, and the need to conserve this precious resource. This program provides:

- Classroom presentations led by a certified educator to students in all public schools within Asheville and Buncombe County
- Customized water presentations for civic groups
- Water libraries that contain water-related videos, books, handouts, resources, and curriculum ideas
- Industrial/Commercial auditing program staffed by a team of retired engineers
- Indoor and outdoor water saving retrofit kits

The City of Asheville Water Resources Department
PO Box 7148, Asheville, NC 28802

flows to the rapid mixers where chemicals are added to produce suspended particles; it moves into settling basins where the heavy particles settle out; and it travels back to the ozonation system for further disinfection. It then passes through filters containing granular activated carbon, the pH is adjusted, and fluoride is added. Finally corrosion inhibitors and chlorine are added to enhance water quality in the distribution system.

After treatment, the water travels through over 1,600 miles of water lines and is stored in 28 reservoirs located throughout the distribution system. Each day, our water system delivers an average of 21.4 million gallons of water per day to over 120,000 people in Asheville, Buncombe County, and Henderson County.

Regardless of the source of water or treatment facility processing the water, you can be sure that the product delivered to your tap surpasses all Safe Drinking Water Standards set by the EPA. The employees of the Water Resources Department are committed to treating your water with extraordinary care by perfectly blending science and nature. The result for you is the clear, pure water you receive at your tap.

Lead And Copper

The primary source of lead and copper in tap water is in a customer's home plumbing system. These elements can leach (dissolve) into the water from a building's plumbing through corrosion if the water has been standing in the pipes for several hours. To prevent corrosion from occurring, the City of Asheville has effectively implemented a system-wide corrosion control treatment. At the treatment plants, sodium hydroxide is added to increase the water's natural pH; sodium bicarbonate is added to increase alkalinity; and zinc orthophosphate is added as a corrosion inhibitor. This treatment minimizes corrosion of the pipes.

Buildings at risk for lead or copper in the water are those that have lead service or that have lead solder in copper pipes. Many homes built before 1986 were built with plumbing systems that contained lead solder in the copper pipes. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of the materials used in your home's plumbing. If you are concerned about elevated lead levels in your water at home, you may wish to have your water tested. Also, flush your tap until it becomes noticeably colder (approximately 30 seconds to 2 minutes) before using tap water. This will ensure you draw fresh water from the tap – not water that has been standing in your plumbing for several hours or overnight.

Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

What EPA Wants You To Know

EPA requires us to inform you that some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

The EPA also requires us to tell you that the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before it is treated include microbial contaminants, inorganic contaminants, pesticides and herbicides, radioactive contaminants, and organic chemical contaminants. The City of Asheville has one of the purest sources of water in the country, thus minimizing any chance of contamination.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. It is important to remember that the presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that your tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants. The Food & Drug Administration established limits for contaminants in bottled water which must provide the same level of protection. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

2006 Achievements

- Upgraded over 7,900 linear feet of old 2-inch galvanized and 6-inch cast iron pipe on Fairview Road with 8-inch ductile iron pipe with additional fire hydrants installed for improved fire protection and more reliable water service to area residents; total cost of the project, including complete road paving, is $1.5 million.
- Purchased over 3,000 automated meter reading devices, which enable meters to be read without physically lifting meter lids allowing for drive-by meter reading in areas with unsafe conditions (i.e. steep slopes and inclement weather).
- Implemented a Computerized Maintenance Management System (CMMS) which tracks work orders, helps manage assets (i.e. water lines, hydrants, and meters), and assists in pinpointing exact locations of water breaks.
- Implemented Call Center customer service tracking software, which tracks customer service calls by volume, time, type of calls received, and customer wait time; customer inquiries will be tracked from call initiation to call resolution.

Our Water Quality Surpasses All Requirements

Out of 128 possible substances tested only 13 were detected - making our drinking water one of the best sources of water in the country. The following regulated substances were detected (within very safe limits) in our "finished" drinking water as analyzed between January 1 and December 31, 2006. "Finished" water is the water that leaves our treatment plant and is distributed throughout the system.

Substance and Unit of Measurement	Ideal Goal– MCLG	Highest Level Allowed – MCL	Sample Date	EPA Definition of Potential Source(s) of Substance	Results	Individual Plant Results
REGULATED AT THE TREATMENT PLANT						
Fluoride, ppm	4	4	1/06 & 2/06	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.	High 1.15 Range 1.09 - 1.15	Mills River (MR) = 1.09 North Fork (NF) = 1.15
Turbidity, NTU	N/A	TT = 1 NTU Maximum limit for any measurement	6/20/06 & 3/3/06	The likely source is soil runoff. Monitoring turbidity (cloudiness of water) ensures the effectiveness of our filtration system.	High 0.60	MR = 0.60 NF = 0.33
	N/A	TT = 95% of samples <0.3 NTU	6/20/06 & 3/3/06		99.5% of samples <0.3 NTU	MR = 99.5% NF = 99.7%
Total Organic Carbon (Source), ppm	N/A	TT	1/06, 4/06, 7/06, 10/06	Naturally present in the environment.	Average = 0.60 Range ND - 1.2	MR = ND - 1.2 NF = ND - 0.96
Total Organic Carbon (Treated), ppm	N/A	TT	1/06, 4/06, 7/06, 10/06	Naturally present in the environment.	ND	MR = ND NF = ND
REGULATED AT THE CUSTOMER'S TAP						
Copper, ppm	1.3	AL = 1.3	7/06 - 8/06	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	0.065 at 90th percentile	None of the 52 targeted sampling sites exceeded the Action Level.
Lead, ppb	0	AL = 15	7/06 - 8/06	Corrosion of household plumbing systems; erosion of natural deposits.	5 at 90th percentile	4%,or two out of 52 targeted sampling sites, exceeded the Action Level. After resampling, they were below the Action Level.
REGULATED IN THE DISTRIBUTION SYSTEM						
Total Coliform Bacteria (presence or absence)	0	5% positive samples	6/26/06, 9/26/06, 9/27/06	Naturally occurring in the environment.	2%	Three positive samples. Upon rechecking site, upstream & downstream, all samples showed no total Coliform bacteria.
Fecal Coliform or E. Coli (presence or absence)	0	0 (Note: The MCL is exceeded if a routine sample and repeat sample are total Coliform positive and one of those repeats is also E. Coli positive.)	6/26/06	Human or animal fecal waste	1 positive	One positive sample for the year. Upon rechecking site, upstream & downstream, all samples showed no E. Coli bacteria. No violation occurred.
Total Trihalomethanes, ppb	0	80	1/9/06, 4/12/06, 7/19/06, 10/10/06	By-product of drinking water chlorination.	30.0 (RAA) Range 8.5 - 52.0	MR = 19.6 (Average) NF = 40.3 (Average)
HAA5, ppb	NA	60		Total Haloacetic Acid.	21.5 (RAA) Range 5.0 - 35.9	MR = 12.5 (Average) NF = 30.4 (Average)
Chlorine, ppm	MRDLG = 4	MRDL = 4	daily	Water additive used to control microbes.	System Average 1.14 Range 0.30 - 2.17	
UNREGULATED AT THE TREATMENT PLANT						
Sulfate, ppm	500 Proposed	NR	1/06 & 2/06	Naturally occurring mineral in soil.	Average 4.5 Range ND - 9	MR = 9 NF = ND
Chloroform, ppb	NR	NR	1/06 & 2/06	Component of Total Trihalomethanes.	Average 2.62 Range ND - 5.25	MR = ND NF = 5.25
Bromodichloromethane, ppb	NR	NR	1/06 & 2/06	Component of Total Trihalomethanes.	Average 0.42 Range ND - 0.83	MR = ND NF = 0.83

This table summarizes results for calendar year 2006.

2006 PHYSICAL AND MINERAL CHARACTERISTICS

The following constituents analyzed in your water are indicators of the appearance, taste, and mineral content of the drinking water delivered to your tap.

Constituent	Annual Average
pH, standard units	7.7
Alkalinity, mg/l	23.2
Hardness, mg/l	4.9
Sodium, mg/l	11.01

En Espanol: Este Informe contiene information muy importante. Traduscalo o hable con un amigo quien lo entienda bien.

KEY TO UNIT ABBREVIATIONS

AL = Action Level; the concentration of a contaminant that triggers treatment or other requirements that a water system must follow. Action Levels are reported at the 90th percentile for homes at greatest risk.
MCL = Maximum Contaminant Level; the highest level of a contaminant that is allowed in drinking water.
MCLG = Maximum Contaminant Level Goal; the level of a contaminant in drinking water below which there is no known or expected risk to health.
MRDLG = Maximum residual disinfectant level goal.
MRDL = Maximum residual disinfectant level.
N/A = Not applicable.
ND = Not detected.
NR = Not regulated.
NTU = Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.
ppb = Parts per billion or micrograms per liter.
ppm = Parts per million or milligrams per liter.
RAA = Running annual average.
TT = Treatment Technique; a required process intended to reduce the level of a contaminant in drinking water.
< = Less than.